

STANDARD TEST METHOD FOR SOLVENT ANALYSIS IN HAZARDOUS WASTE USING GAS CHROMATOGRAPHY BY ASTM D5830-95 (2006)

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Facility Name: _____ VELAP ID: _____

Assessor Name: _____ Analyst Name: _____ Inspection Date: _____

Relevant Aspect of Standards**Method
Reference****Y****N****N/A****Comments***Records Examined:* SOP Number/ Revision/ Date _____ Analyst: _____

Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

Are sources other than GC-retention time used when interferences are suspected (e.g. GC/MS, confirmation column, sample history, etc.)?

5.1

Was the syringe thoroughly rinsed with an appropriate solvent immediately following each injection and two pumps of the sample into a separate waste receptacle before the next injection?

5.2

Were reagent grade chemicals, high purity gases, 99% pure standards and Type II water used?

7.1-3

Were stock standards prepared by directly weighing each component, using the same solvent used in sample extraction or dilution?

8.1

Was the linear response and range of the detector(s) and GC system(s) established and all sample analysis performed within this range?

8.2 (note 3)

Are liquid matrices with low viscosity analyzed using direct injection into the GC?

10.1

For solids, is 3 grams of waste sample and 3 grams of carbon disulfide (or M-Pyrol) vortexed, allowed to settle (alternate amounts may be used if recorded and reflected in the calculations) ?

10.1.2.1-2

Was the linearity and linear range for each compound established and repeated on an annual basis or after any major maintenance or alteration of the system configuration (for systems used for quantitation)?

10.3

Notes/ Comments:

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Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
For external standard calibration, was a single-point initial calibration of all compounds performed at least monthly?	10.4.1				
For external standard calibration, was peak area tabulated against concentration and expressed as response factor (RF) for each component?	10.4.1				
Are response factors verified daily or after every 20 samples, whichever is more frequent by injecting 0.5-2.0 uL of the check standard for every column used for quantitation?	10.4.2				
Was corrective action taken if the predicted response varies by $\pm 20\%$ of the initial calibration (up to and including a new initial calibration)?	10.4.2				
Were liquid samples introduced into the GC by direct injection using 0.5- 2.0uL?	10.5.1				
Were solid samples prepared according to 10.1.2 followed by injection of the extract using 0.5-2.0uL?	10.5.2				
Was the compound concentration determined as %weight using the calculations in 11.1?	11.1				
Did each analyst perform an initial demonstration of capability?	12.1				
Did the laboratory analyze duplicates and spiked samples (or MS and MSD) to evaluate and document quality control?	12.3				
Was a method blank carried through all stages of sample preparation and measurement and analyzed before each set of samples ?	12.2				
Did the laboratory demonstrate monthly the ability to identify each compound at the reporting levels (to be considered valid, each peak must have a signal-to-noise ratio greater than 10)?	12.4				
Notes/ Comments:					